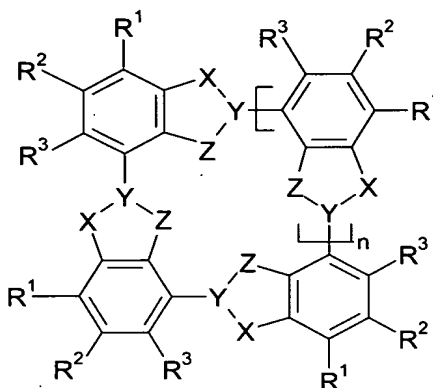## Abstract

5   The use of cyclic compounds of the formula (I)

10

where

n   is a number in the range from 1 to 7,

15   X-Y-Z,   in each case independently of one another, is O-C=N, N=C-O, NR^5-C=N, N=C-NR^5, N$^+$R$^5_2$-C=N, N=C-N$^+$R$^5_2$, O-C=N$^+$R^5, N$^+$R^5=C-O, S-C=N$^+$R^5, N$^+$R^5=C-S, S-C=N, N=C-S,

R^1, R^2 and R^3 each independently are, for example, H or a substituent

20   or corresponding heterocyclic compounds in which at least one group -CR^1=, -CR^2=, CR^3= is replaced by -N,

R^5 in each case independently are, for example, H or a substituent

25

R^7,   in each case independently of one another, are H, C$_{1-12}$-alkyl or C$_{6-12}$-aryl,

or metal complexes of the cyclic compounds or complexes of the cyclic compounds
30   with mineral acids,

chloride, sulfate, bisulfate, phosphate, hydrogen phosphate, nitrate, BF_4^- or methanesulfonate being present as opposite ions X^- in the case of cationic cyclic structures,

5

as light absorbers, materials for hole injection layers in OLEDs, light-emitting compounds in OLED, phase-transfer catalysts or synergistic agents for the dispersing of pigments or for optical data storage, is described.